

PATENT COOPERATION TREATY

PCT

REC'D 17 DEC 2004

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 1503.148PC01	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/US03/18218	International filing date (day/month/year) 12 June 2003 (12.06.2003)	Priority date (day/month/year) 13 June 2002 (13.06.2002)
International Patent Classification (IPC) or national classification and IPC IPC(7): G06T 15/00 and US Cl.: 345/660		
Applicant 3-DIMENSIONAL PHARMACEUTICALS, INC.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 5 sheets, including this cover sheet.
- ☐ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of report with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 30 December 2003 (30.12.2003)	Date of completion of this report 10 December 2004 (10.12.2004)
Name and mailing address of the IPEA/US Mail Stop PCT, Attn: IPEA/US Commissioner for Patents* P.O. Box 1450 Alexandria, Virginia 22313-1450* Facsimile No. (703)305-3230	Authorized officer Mike Razavi <i>Kenif</i> Telephone No. (703) 306-0377

Form PCT/IPEA/409 (cover sheet)(July 1998)

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/US03/18218

I. Basis of the report

1. With regard to the elements of the international application:*

- ☒ the international application as originally filed.
- ☒ the description:
pages 1-16 as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the claims:
pages 17-19, as originally filed
pages NONE, as amended (together with any statement) under Article 19
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☒ the drawings:
pages 1-8, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.
- ☐ the sequence listing part of the description:
pages NONE, as originally filed
pages NONE, filed with the demand
pages NONE, filed with the letter of _____.

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.
These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rules 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in printed form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages NONE
- ☐ the claims, Nos. NONE
- ☐ the drawings, sheets/fig NONE

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

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V. Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. STATEMENT

Novelty (N)	Claims <u>NONE</u>	YES
	Claims <u>1</u>	NO
Inventive Step (IS)	Claims <u>NONE</u>	YES
	Claims <u>1-8</u>	NO
Industrial Applicability (IA)	Claims <u>1-8</u>	YES
	Claims <u>NONE</u>	NO

2. CITATIONS AND EXPLANATIONS

Please See Continuation Sheet

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

V. 2. Citations and Explanations:

Claim 1 lacks novelty under PCT Article 33(2) as being anticipated by Jain.

Regarding claim 1, Jain discloses a computerized method for generating mapping coordinates for a set of objects, wherein two or more objects are related by associated pairwise relationship (col. 5, lines 31-44) the method comprising the steps of: 1) specifying a set of bounds for one or more relationships (col. 10, lines 36-41, defining a display space which is used to rank images within the geometry of the space); 2) assigning initial coordinates to the objects on the map (col. 10, lines 40-41, deriving the metrics inside the display space); 3) selecting a pair of objects 4) computing a distance d between said selected object on the map; (col. 7, lines 41-51) 5) comparing said distance d between said selected objects on the map to the bounds of their associated relationship (col. 9, lines 35-46, col. 10, lines 48-50); 6) adjusting the coordinate so said selected objects on the map so that the distance d of selected objects on the map falls closer within said bounds (col. 11, lines 51-57); 7) repeating steps 3) through 6) for additional pairs of objects (col. 11, lines 54-55, recursively repeated); and 8) outputting the coordinates of one or more objects on the map (col. 13, line 60- col. 14, line 3)

Claims 2-8 lack an inventive step under PCT Article 33(3) as being obvious over Jain in view of Cramer.

Regarding claim 2, Jain fails to disclose a) identifying a neighborhood radius $r(c)$; b) selecting a pair of objects; c) comparing the relationship r of said selected objects to said neighborhood radius $r(c)$, assigning a lower bound and an upper bound of said relationship r . . . ; e) if said relationship r of said selected objects is greater than said neighborhood radius $r(c)$, defining a lower bound of said relationship . . . and an upper bound . . . ; and f) repeating steps a) through e) . . . (col. 12, lines 10-25)

Cramer discloses clustering using generated by using distance for similarity and the size of the and the size of the neighboring radius for clustering analysis, col. 30, lines 28-60.

It would have been obvious to include as a criteria for measuring the similarity of objects disclosed in Jain, the radius criteria as disclosed in Cramer, to allow a perceptual display of the display space to a user, with the criteria interactively derived.

Regarding claim 3, Jain discloses a pairwise relationship between two objects represents a similarity/dissimilarity between said objects. (col. 9, lines 50-52)

Regarding claim 4, Jain discloses wherein a pairwise relationship between two objects represents a distance between said objects. (col. 9, lines 45-46)

Regarding claim 5, Cramer discloses step 6) comprises the step of: adjusting the coordinates of said selected objects on the map by a correction factor so that said distance d of said selected objects on the map falls closer within said bounds of said corresponding relationship r , if said distance d between said selected objects on the map falls outside said bounds of said

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

corresponding relationship r . (col. 30, lines 1-27)

Regarding claim 6, Cramer discloses repeating steps 3) through 7) for several correction factors. (col. 30, lines 22-24)

Regarding claim 7, Cramer discloses the value of the correction factor is reduced after each repetition of steps 3) through 7).
(col. 30, lines 51-60)

Regarding claim 8, Cramer discloses steps 1) through 7) are repeated for several neighborhood radii $r(c)$. (col. 30, lines 56-57)

----- NEW CITATIONS -----